



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,323	10/31/2003	Sanjai Singh	MWS-089	2561
959 7590 05/18/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER KENDALL, CHUCK O	
			ART UNIT 2192	PAPER NUMBER
			MAIL DATE 05/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/699,323	Applicant(s) SINGH ET AL.	
	Examiner Chuck O. Kendall	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to Amendment filed 02/28/07.
2. Claims 1 – 55 have been amended.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 - 34, 37 - 45, and 48 - 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh (US Patent 6,868,526) in view of Lawton et al. 5,990,901.

Claims 1, 48, and 52:

Singh discloses a method of building a diagram, comprising the steps of:

receiving a user input for selecting a graphical object in the diagram (see for example Fig. 3, item 42 and related text). Although Singh doesn't expressly disclose displaying the plurality of transformation operation to be performed on the selected graphical object, he does disclose performing operations on a displayed window model and performing placement of the selected blocks within the users model (6:1 – 5).

However, Lawton in an analogous art of morphing and performing object and image editing and transformations (see abstract) discloses applying editing tools to object of image (FIG. 3, 121) and updating display memory (FIG.3, 123).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Singh and Lawton because, it would enable customizing the objects more visual and efficiently.

and displaying to a user a plurality of transformation operations to be performed on the selected graphical object for creating a second graphical object derived from the selected graphical object (see for example Fig. 2A, Fig 213, blocks 24, 32, 34 (libraries), Fig. 3, and related text).

Claim 2:

Singh discloses the method of claim 1, wherein the plurality of transformation operations are displayed in one of a context menu, a toolbar and a roll-up menu (see for example Fig. 5d, and related text).

Claim 3:

Singh discloses the method of claim 1, wherein the user input indicates that the user has selected the graphical object by moving a pointer over the graphical object (see for example "clicking on the library node... ", col. 5: 63-67 to col. 6: 1-6).

Claim 4:

Singh discloses the method of claim 1, wherein the plurality of transformation operations include one or more of:

a copy operation (see for example Fig. 5E, item 90 and related text),

a copy and morph operation for creating a second graphical object having one or more properties that is different from the properties of the selected graphical object (see for example Fig. 3, items 46, 54 and related text),

Claim 5:

Singh discloses the method of claim 1, further comprising the steps of:

receiving a user input for selecting one of the transformation operations from the plurality of transformation operations (see for example Fig. 3, items 46, 54 and related text);

and executing the selected transformation operation on the selected graphical object to create a transformed graphical object (see for example Fig. 3, items 46, 54 and related text).

Claim 6:

Singh discloses the method of claim 5, wherein the transformed graphical object is created in the diagram (see for example Fig. 3, item 54 and related text).

Claim 7:

Singh discloses the method of claim 5, wherein the transformed graphical object has a different class from the selected graphical object (see for example Fig. 3, item 54 and related text).

Claim 8:

Singh discloses the method of claim 7, wherein the transformed graphical object is an instance of a superclass of the selected graphical object (see for example Fig. 3, and related text).

Claim 9:

Singh discloses the method of claim 7, wherein the transformed graphical object is an instance of a subclass of the selected graphical object (see for example Fig. 3, and related text).

Claim 10:

Singh discloses the method of claim 5, wherein the transformed graphical object shares a base class with the selected graphical object (see for example Fig. 3, and related text).

Claim 11:

Singh discloses the method of claim 5, wherein the transformed graphical object is a shadow of the selected graphical object (see for example Fig. 3, and related text).

Claim 12:

Singh discloses the method of claim 2, wherein the selected transformation operation is a copy and morph operation, wherein the transformed graphical object has one or more properties that are different from the selected graphical object (see for example Fig. 3, items 46, 54 and related text).

Claim 13:

Singh discloses the method of claim 12, wherein the transformed graphical object is a signal tap block for tapping a signal from the selected graphical object (see for example Fig. 5C, and related text).

Claim 14:

Singh discloses the method of claim 13, wherein the selected graphical object is a block having an output that represents the signal (see for example Fig. 5C, and related text).

Claim 15:

Singh discloses the method of claim 13, wherein the selected graphical object is a line representing the signal (see for example Fig. 5C, and related text).

Claim 16:

Singh discloses the method of claim 12, wherein the selected graphical object and the transformed graphical object are functionally related blocks (see for example Fig. 213, item 24 and related text).

Claim 17:

Singh discloses the method of claim 16, wherein the selected graphical object and the transformed graphical object are one of source blocks and sink blocks (see for example Fig. 2B, item 24 and related text).

Claim 18:

Singh discloses the method of claim 12, wherein the transformed graphical object is an inverse graphical object of the selected graphical object (see for example Fig. 213, and related text).

Claim 19:

Singh discloses the method of claim 18, wherein one of said transformed graphical object and said selected graphical object is a bus creator block and the other of said transformed graphical object and said selected graphical object is a bus selector block (see for example Fig. 213, and related text).

Claim 20:

Singh discloses the method of claim 5, wherein the transformed graphical object is a copy of the selected graphical object (see for example Fig. 5E, and related text).

Claim 21:

Singh discloses the method of claim 20, wherein the transformed graphical object has implicit links to the selected graphical object (see for example Fig. 5E, and related text).

Claim 22:

Singh discloses the method of claim 5, wherein the step of executing the selected transformation operation comprises morphing the selected graphical object into the transformed graphical object by changing one or more properties of the selected graphical object (see for example Fig. 3, items 46, 54 and related text).

Claim 23:

Singh discloses the method of claim 5, further wherein the step of executing the selected transformation operation comprises executing a customized transformation operation created by a user (see for example Fig. 3, items 46, 54 and related text).

Claims 24, 37, 50 – 51, 54 - 55:

Singh discloses a method of building a diagram, comprising the steps of:

receiving a user input for selecting a first graphical object in the diagram (see for example Fig. 3, item 42 and related text).

Although Singh doesn't expressly disclose executing a copy and morph operation on the first graphical object to create a second graphical object derived from the first graphical object, wherein the second graphical object automatically has one or more properties that are different than the first graphical object, he does teach copying graphical blocks into their models and updating the model to reflect the most recent version of the block (4:5 – 15).

However, Lawton in an analogous art of morphing and performing object and image editing and transformations (see abstract) discloses including a copy and pasting it over the pre-stored image (16:45 – 48) and morphing the first object into the second object (17:29 – 34). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Singh and Lawton because, it would make morphing the object more efficient by copying it into the second object.

Claim 25:

Art Unit: 2192

Singh discloses the method of claim 24, wherein the selected graphical object is a block outputting a signal, and the step of executing a copy and morph operation comprises creating a signal tap block for tapping the signal (see for example Fig. 5C, and related text).

Claim 26:

Singh discloses the method of claim 24, wherein the selected graphical object is a line representing a signal, and the step of executing a copy and morph operation comprises creating a signal tap block for tapping the signal (see for example Fig. 5C, and related text).

Claim 27:

Singh discloses the method of claim 24, wherein the selected graphical object and the transformed graphical object are functionally related blocks (see for example Fig. 213, item 24 and related text).

Claim 28:

Singh discloses the method of claim 27, wherein the selected graphical object and the transformed graphical object are source blocks (see for example Fig. 2B, item 24 and related text).

Claim 29:

Singh discloses the method of claim 24, wherein the transformed graphical object is an inverse graphical object of the selected graphical object (see for example Fig. 213, and related text).

Claim 30:

Singh discloses the method of claim 29, wherein one of said transformed graphical Object and said selected graphical object is a bus creator block and the other of said transformed graphical object and said selected graphical object is a bus selector block (see for example Fig. 213, and related text).

Claim 31:

Singh discloses the method of claim 24, further comprising the step of selecting a copy and morph operation to be performed on the selected graphical object prior to executing the copy and morph operation (see for example Fig. 3, items 46, 54 and related text).

Claim 32:

Singh discloses the method of claim 31, wherein the step of selecting comprises selecting a copy and morph operation from a context menu displaying a plurality of transformation operations to the user (see for example Fig. 5E, and related text).

Claim 33:

Singh discloses the method of claim 24, further comprising the step of the user entering a command associated with a copy and morph operation prior to the step of executing the copy and morph operation (see for example Fig. 3, items 46, 54 and related text).

Claim 34:

Singh discloses the method of claim 33, wherein the user enters the command using a command line mechanism (see for example Fig. 5D, item 82a and related text).

Claim 38:

Singh discloses the method of claim 37, wherein the step of executing the morph operation comprises morphing the selected graphical object to a signal tap block for tapping a signal (see for example Fig. 5C, and related text).

Claim 39:

Singh discloses the method of claim 37, wherein the step of executing the morph operating comprises morphing the selected graphical object into a functionally related graphical object (see for example Fig. 5C, and related text).

Claim 40:

Singh discloses the method of claim 37, wherein the step of executing the morph operating comprises morphing the selected graphical object into an inverse graphical object (see for example Fig. 213, item 24 and related text).

Claim 41:

Singh discloses the method of claim 40, wherein one of said inverse graphical object and said selected graphical object is a bus creator block and the other of said inverse graphical object and said selected graphical object is a bus selector block (see for example Fig. 213, item 24 and related text).

Claim 42:

Singh discloses the method of claim 37, further comprising the step of selecting a morph operation to be performed on the selected graphical object prior to executing the morph operation (see for example Fig. 3, items 46, 54 and related text).

Claim 43:

Singh discloses the method of claim 42, wherein the step of selecting comprises selecting a morph operation from a context menu displaying a plurality of transformation operations to the user (see for example Fig. 5E, and related text).

Claim 44:

Singh discloses the method of claim 37, further comprising the step of the user entering a command associated with the morph operation prior to the step of executing the morph operation (see for example Fig. 3, items 46, 54 and related text).

Claim 45:

Singh discloses the method of claim 44, wherein the user enters the command using a command line mechanism (see for example Fig. 5D, item 82a and related text).

Claim 49:

Singh discloses the medium of claim 48, holding instructions for receiving a user input selecting one of the transformation operations from the plurality of transformation operations and instructions for executing the selected transformation operation on the selected graphical object to create a transformed graphical object (see for example Fig. 5E, and related text).

Claim 53:

Singh discloses the method of claim 52, wherein the program instructions further include instructions for executing a selected transformation operation on the selected graphical object after a user selects the selected transformation operation from the plurality of transformation operations (see for example Fig. 5E, and related text).

Art Unit: 2192

4. Claims 35 - 36, and 46 - 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh (US Patent 6,868,526) in view of Lawton et al. 5,990,901 as applied in claims 33 and 44, and further in view of Johnson (US Patent 5, 621, 880).

Claims 35 - 36, and 46 - 47:

Singh as modified by Lawton discloses the method of claims 33 and 44 above, respectively, but does not explicitly disclose entering commands using one or more accelerator keys (hot keys) or voice command.

Johnson discloses a method of entering commands using hot keys and voice commands (col. 7: 2-6).

It would have been obvious to one with ordinary skill in the art at the time of the invention to implement and/or take advantage of such known techniques (accelerator/hot keys and voice command) disclosed by Johnson into Singh as modified by Lawton's system because it would provide a user with a wide variety of user interface means while entering input commands.

Response to Arguments

5. Applicant's arguments with respect to claims 1 – 55 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Kendall whose telephone number is 571-272-3698. The examiner can normally be reached on 10:00 am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ck.

Chuck Kendall
5/14/07